

**State of Utah****Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

November 27, 2006

Jay Marshall, Resident Agent  
UtahAmerican Energy Inc.  
P.O. Box 986  
Price, Utah 84501

Subject: Supplemental Technical Information & Clarifications Required, Lila Canyon Extension, UtahAmerican Energy, Inc. (UEI), Horse Canyon Mine, C/007/0013, Outgoing File

Dear Mr. Marshall:

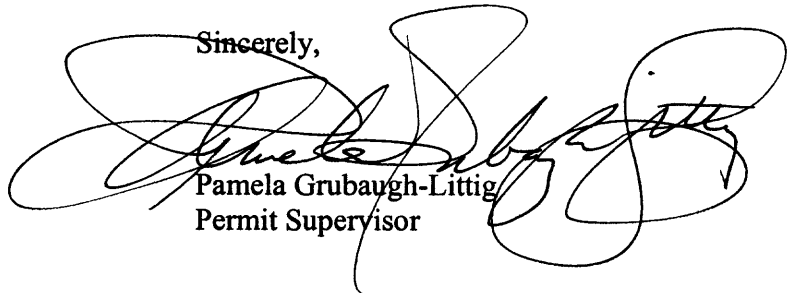
This letter and the attached list of deficiencies summarizes the intent of many discussions, emails, meetings, phone calls and field trips that have occurred since last November between you and your consultants and the Coal Program team. The list of deficiencies arises from the following sources: information received from UEI since the Division's November 23, 2005 technical review; technical discussions with UEI; the preparation and refinement of the technical analysis document; and review of the December 14, 2001 Board Order. This list of deficiencies must be addressed in the UtahAmerican Energy, Inc. (UEI) mining and reclamation plan application for the Horse Canyon Extension to comply with Coal Rules R645-301 and 302. The initials of each author are provided in bolded parentheses at the end of each deficiency in case UEI has questions about it.

Counsel for UEI has requested that the permit application be approved within 60 days. While UEI requests that the Division *issue* the permit within 60 days, the Division's obligation is to make a decision consistent with the requirements of the law. Utah Code §40-10-11(2) requires that the permit application affirmatively demonstrate and the Division find that the application is accurate, complete and that all of the other requirements of that section have been complied with based on the application before it. The sooner the Division receives a response to these deficiencies, the sooner the Division can make a decision on the application. The Division will require a reasonable time to review the submitted information. If UEI insists on a decision within 60 days from the November 21, 2006 demand letter, and insufficient information has been submitted and/or there is insufficient time to make an analysis and decision, the Division will have no alternative but to deny the permit.

Page 2  
Jay Marshall  
November 27, 2006

If you have any questions, please feel free to call me at (801) 538-5268, or  
Wayne Hedberg at (801) 538-5286.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pamela Grubaugh-Littig', is written over the printed name and title. The signature is stylized with large, looping letters.

Pamela Grubaugh-Littig  
Permit Supervisor

an  
Attachments: Technical deficiencies  
August 31, 2006 letter  
cc: Denise Dragoo  
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## **Technical Deficiencies**

### **Task ID #2421**

#### **Permit Application Format and Content**

##### **R645-301-121.200**

- UEI must update any information in the MRP to reflect possible changes in how BLM will address 42EM2517.
- Provide the USFWS January 11, 2006 Formal Section 7 and February 28, 2006 Informal Section 7 response letters. UEI may obtain a copy from the DOGM PIC room. UEI may want to locate these letters as the first few pages behind the tab page for Appendix 3-3. *(JAE)*
- The mining and reclamation plan must be clear and concise. The fifth paragraph on Page 24 states there are no perennial reaches in Lila Canyon or Little Park Wash. This statement needs to be corrected because the springs are perennial and flow for a short distance down stream.
- Second paragraph on Page 26 states "There are no specified water uses for stream flows." This statement is incorrect. There is a BLM stock pond fed by flows in Grassy Wash. Grassy Wash is fed partly by flow from Lila Canyon. Flows in Lila Wash have some potential of flowing to the pond. The statement should be corrected or explained.
- First paragraph on Page 30 states "---high-intensity thunderstorms that flow from ephemeral drainages---". This statement is inaccurate, because the streams are considered intermittent by definition. The statement should be corrected. The Permittee should check to make sure all drainages over a square mile are identified as intermittent.
- Table 7-1a should be cross-referenced to a map.
- The cover page for IPA piezometers still states "Water Monitoring Well Data". It should state "Piezometer Data".
- Information in Appendix 7-10 shows the simulated peak flow using modeling methods. It is unclear if the flows in the simulated hydrographs are cumulative discharge flow rates at the bottom of the drainage, which include all reaches of the drainage, or represents the lower most drainage. This needs to be explained.
- The outline of the drainage basin areas for WS 2.2/WS 6.7 on the Map in Appendix 7-10 are not correct and must be corrected, because the areas affect the peak flow calculations.
- The map in Appendix 7-10 should be labeled and contain a legend.
- Photographs of water monitoring sites in Appendix 7-8 should be added if they are available. *(DWD)*

##### **R645-301-121.120, -542.710, 731.760**

- UEI must show on Plate 7-1 where the cross section in Figure 7-1 is located in relation to the permit and disturbed areas.

- On Figure 7-1 and Plate 7-1, UEI must reconcile the elevation at which the mine workings are projected to encounter the potentiometric surface. (The Division fully realizes this elevation is projected or approximated, but depictions on maps and cross sections and related descriptions in the text need to be congruent.) *(JDS)*

**R645-301-121.200, -731.760**

For Figure 7-1, UEI must:

- Show locations where the IPA piezometers can be projected into this cross section (that is, if any of them can be projected into this cross section).
- Depict the “upper saturated zone”.
- Specify clearly the vertical exaggeration (1:1) on the cross section. *(JDS)*

**R645-301-132**

- UEI must provide information on Tom Suchowski’s qualifications in the MRP. *(JDS)*
- UEI must provide professional credentials of Montgomery Archeological Consultants (for all surveyors that managed or assisted in any previous surveys for the Lila Canyon Extension project) and Dr. King. UEI must place these requested documents in the MRP, Vol. 1 of 7, Appendix 1-5.)
- UEI must provide names to go with the initials on the ephemeral stream monitoring reports in Appendix 7-1. If the qualifications of these individuals are not already in the MRP, provide a description of their professional qualifications to generate these reports. *(JAE)*

**Vegetation**

**R645-301-321.100**

- UEI must provide the most current community characterization for the spring that is within the permit area and in the side channel east of Little Park Wash. *(JAE)*

**Cultural**

**R645-301-411.140**

- UEI must update Chapter 4 narrative (MRP Volume 3 of 7) to reflect the June 2006 and supplemental inventories, Programmatic Agreement (include that 42EM2255/56 will be managed under the stipulations of the PA), and MOA (include that BLM will mitigate 42EM2517 under the commitments of the MOA). UEI should edit many of the paragraphs on pages 11 and 12. (None of this information should be considered confidential.)
- UEI must update “Summary of Notable Results as of 2005” (MRP Volume Confidential Binder, Appendix 4-1) to reflect the June 2006 and supplemental inventories. (All of this information should be considered confidential.)
- UEI must update Plate 4-3 (MRP Volume Confidential Binder) to reflect the June 2006 and supplemental inventories. On Plate 4-3, include a brief note under

42EM2255 that it could not be relocated in 2006. (This information should be considered confidential.) Provide an explanation in Chapter 4 (MRP Volume 3 of 7) that explains that Montgomery and Blain Miller (BLM) attempted to relocate this site in 2006. Explain that this site is still considered eligible, and if mining operations change to include surface facilities near this site (and 42EM2256), then the participating agencies of the PA will reconvene. (All of this information should not be considered confidential.) Note, that these requests were briefly mentioned in a letter sent to you in early September 2006. The requests here provide information that is more detailed.

- UEI must update Appendix 4-1 (MRP Volume Confidential Binder) by submitting the 2006 compilation report. (All of this information should be considered confidential.) (*JAE*)

### **Transportation Facilities Maps**

#### **R645-301-521.170**

- UEI must provide the Division with a map/plate showing the original (2001) proposed road realignment profile for the Lila Canyon Road #126 from state Highway 191/6 to the proposed mine site disturbed area boundary. This information is required to reaffirm the Division's original public roads finding. (*DWH*)

### **Subsidence**

#### **R645-301-525**

- UEI must describe the potential impacts from subsidence to the state appropriated water resources downstream of Lila Canyon: the Right Fork of Lila Wash; the unnamed wash between the Right Fork of Lila Wash and Stinky Wash; and Stinky Wash (specifically, water rights 91-2617 through 91-2621, the BLM cattle/stock-ponds located west of the escarpment). This information should also be referenced in the PHC.
- UEI must describe the potential impacts of subsidence from mining on Spring L-9-G. This should also be referenced in the PHC. (*DWD*)

### **Hydrologic**

#### **R645-301-722.100**

- UEI must clarify how springs associated with the perched groundwater zone(s), near the Colton-Flagstaff/North Horn Formation contact are recharged. An explanation must be included to explain if the springs flow from a single large perched aquifer system, or is there a perched aquifer for each spring. Describe why UEI has not shown or portrayed on a map or cross-section of the head (water level) or seasonal variation in the aquifer.
- UEI must make it clear if the springs on and adjacent to the permit area are currently being used, what those uses are, and the condition of the facilities they supply. (*DWD*)

**R645-301-724**

- UEI must explain the rationale for calculating a peak discharge of 37 cfs (Appendix 7-9) for the Right Fork during a 2yr event, and then in Table 7-1A and Appendix 7-10 showing a calculated flow of 0.0 cfs for a 2yr-6hr peak flow event and a flow of 0.43 cfs for the 2yr-24hr event.
- During a recent archeological study, it was determined that spring L-9-G was inaccurately plotted on Plate 7-1. It is located within the boundaries of the projected subsidence zone. UEI must provide assurance that the other monitoring springs are plotted accurately and must be identified on the hydrologic map (Plate 7-1). This was identified as a deficiency in a letter dated August 31, 2006. (see attached).
- The Division is not convinced the Permittee has shown, in the MRP, that no flow data collected for intermittent streams represents a complete picture of the seasonal variation in flow. The data collected on the streams is "0" flow. It is a fact that the streams flow some time during the year. Why hasn't water quality and quantity data been collected during those times? The Permittee should submit reasonable justification how the data reflects the seasonal variation, or provide baseline water quality and quantity data representing the seasonal flow of the streams on and adjacent to the permit area. *(DWD)*

**R645-301-724.100**

UEI must clarify the connection of ground water in the Lila Canyon Extension permit area to:

- Horse Canyon Mine water quality data
- S-32 data
- Any other pertinent ground-water quality data that is available. *(JDS)*

**R645-301-726**

- UEI must tie the peak flow simulation in Appendix 7-10, to the actual no-flow surface water baseline monitoring results. *(JDS)*

**R645-301-728**

Complete information must be included in the PHC. Although hydrologic information is mentioned elsewhere in the mining and reclamation plan, the PHC must be a complete document and include the following information:

- The consequence to stream flow on and outside the permit area, state appropriated water sources, riparian areas and wildlife usage. The PHC should also contain facts about the function of the streams and groundwater systems (aquifers and saturated zone).
- The consequences of subsidence to groundwater systems and their recharge sources in and outside the permit area.
- A description of the function, intended use and potential for developing and using groundwater zones. The PHC must also describe the consequences mining will

have on the function and quality of the groundwater regimes, and how they affect the hydrologic balance of Range Creek.

- The potential subsidence-related impacts to springs within the expected area of subsidence and down gradient of groundwater resources. Impacts to springs as a result of mining under the recharge areas. Consequences to springs in Range Creek. Consequences to springs along the Book Cliffs escarpment.
- Clearly identify all subsidence impacts to springs, streams, groundwater systems, stock ponds, sedimentation ponds and reservoirs as a result of subsidence and state the mitigation measures to minimize material damage. (DWD)

#### R645-301-731

- UEI must establish an operational water monitoring site on Little Park Wash, outside the permit area. (Baseline water monitoring information is not needed from this site, because the flow is nearly the same as Site L-13-S. There are no contributing (spring) sources other than overland flow. Essentially, the data already recorded for site L-13-S are representative of the new site). (DWD)

#### R645-301-731.111, -731.121,

- UEI must clarify how the analyses of data from S-24 and S-25 provide information on the acid- and toxic-forming properties of the rock that will be removed during construction of the access tunnels. (JDS)

#### R645-301-731.600

- UEI must correct the statement in Section 731.600 Buffer Zones:

*All streams within the permit area are either ephemeral or intermittent by rule with ephemeral flow. As such, buffer zones are not required; however, to provide additional protection, the Operator will install stream buffer zone signs in locations shown on Plate 5-2 and maintain the buffer zones during the operation."*

Even though Lila Wash is in fact an ephemeral stream, because it drains an area greater than 1 mi<sup>2</sup> above the mine, it must be treated as an intermittent stream in applying the Coal Mining Rules. Buffer zones are required where operations will be conducted within 100 feet of the intermittent stream. The proposed surface facilities are located adjacent to Lila Wash.

- Contrary to the statement found under 731.600, Plate 5-2 does not clearly show the buffer zone. UEI must clearly show the Lila Wash buffer zone on Plates 5-2 and 7-2, and any other appropriate map.
- Cross Sections 2+00, 4+00, and 6+00 show that drainage from the road and part of the parking area will report to Lila Wash. Sediment control between Lila Wash and the road and parking lot needs to be described.
- UEI needs to show, using the cross-sections on the Plate 5-7 series, that no operation is planned for the channels or flood plains of Lila Wash.
- UEI needs to relate water flows predicted in Appendix 7-10 to stream channels and flood plains depicted on cross sections on the Plate 5-7 series.

- UEI needs to tie conclusions about water quality and quantity impacts to the buffer zone findings. *(JDS)*

**R645-301-731.760**

On the cross section on Plate 7-1B, UEI must show:

- The “upper saturated zone”.
- Where the IPA piezometers project into the section. *(JDS)*

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*Lieutenant Governor*

August 31, 2006

Jay Marshall, Vice President  
UtahAmerican Energy Inc.  
P.O. Box 986  
Price, Utah 84501

Subject: Location of Spring Monitoring Site L-9-G, Lila Canyon Extension,  
UtahAmerican Energy Inc., Horse Canyon Mine Part-B, C/007/013,  
Outgoing File

Dear Mr. Marshall:

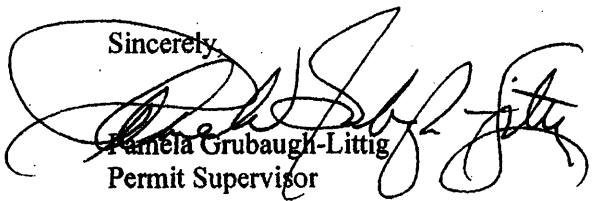
During a recent site field visit on July 19, 2006 David Darby accompanied you to the spring site identified as L-9-G, one of the baseline monitoring springs. You used a GPS unit to locate the position of the spring and plotted the spring on a USGS topographic map, which identified the spring to be near the same location plotted by Montgomery Archeological Consultants.

More information is needed about this spring:

- 1) With the monitoring site located within the subsidence zone, UEI needs to identify if there will be impacts to the spring from mining, and
- 2) UEI must modify maps and text (including the PHC) in the MRP to reflect all new information.

Please submit this information soon in order for the permitting process to continue. If you have any questions, please call David Darby at (801) 538-5341 or me at (801) 538-5268.

Sincerely,

  
Pamela Grubaugh-Littig  
Permit Supervisor

dwd

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